

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

<http://www.cas.org/ONLINE/UG/regprops.html>

=>

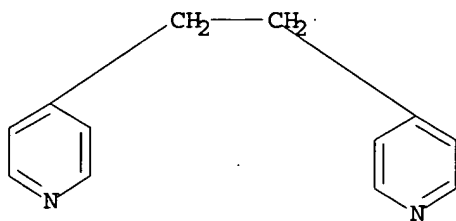
Uploading C:\Program Files\Stnexp\Queries\664355A.str

L1 STRUCTURE UPLOADED

=> d l1

L1 HAS NO ANSWERS

L1 STR



Structure attributes must be viewed using STN Express query preparation.

=> s l1 full

FULL SEARCH INITIATED 16:25:41 FILE 'REGISTRY'

FULL SCREEN SEARCH COMPLETED - 4419 TO ITERATE

100.0% PROCESSED 4419 ITERATIONS

937 ANSWERS

SEARCH TIME: 00.00.01

L2 937 SEA SSS FUL L1

=>

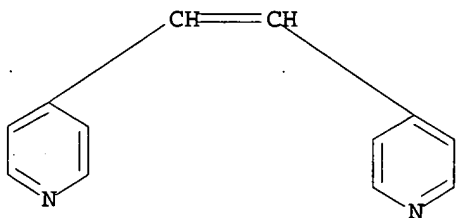
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L3 STRUCTURE UPLOADED

=> d l3

L3 HAS NO ANSWERS

L3 STR



Structure attributes must be viewed using STN Express query preparation.

=> s l3 full

FULL SEARCH INITIATED 16:26:03 FILE 'REGISTRY'

FULL SCREEN SEARCH COMPLETED - 6921 TO ITERATE

100.0% PROCESSED 6921 ITERATIONS  
SEARCH TIME: 00.00.01

1506 ANSWERS

L4 1506 SEA SSS FUL L3

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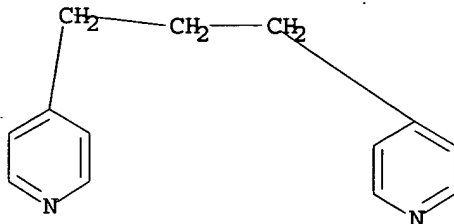
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L5 STRUCTURE UPLOADED

=> d 15

L5 HAS NO ANSWERS

L5 STR



Structure attributes must be viewed using STN Express query preparation.

=> s 15 full

FULL SEARCH INITIATED 16:26:32 FILE 'REGISTRY'

FULL SCREEN SEARCH COMPLETED - 16003 TO ITERATE

100.0% PROCESSED 16003 ITERATIONS  
SEARCH TIME: 00.00.02

615 ANSWERS

L6 615 SEA SSS FUL L5

=>

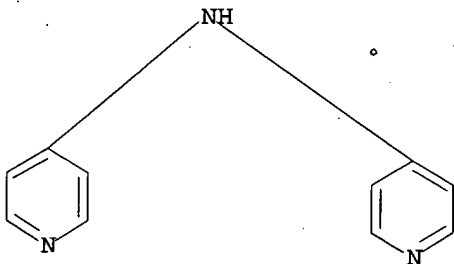
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L7 STRUCTURE UPLOADED

=> d 17

L7 HAS NO ANSWERS

L7 STR



Structure attributes must be viewed using STN Express query preparation.

=> s 17 full

FULL SEARCH INITIATED 16:27:06 FILE 'REGISTRY'

FULL SCREEN SEARCH COMPLETED - 10952 TO ITERATE

100.0% PROCESSED 10952 ITERATIONS  
SEARCH TIME: 00.00.01

212 ANSWERS

L8 212 SEA SSS FUL L7

=>

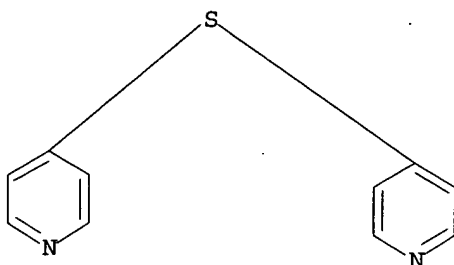
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L9 STRUCTURE UPLOADED

=> d 19

L9 HAS NO ANSWERS

L9 STR



Structure attributes must be viewed using STN Express query preparation.

=> s 19 full

FULL SEARCH INITIATED 16:27:31 FILE 'REGISTRY'

FULL SCREEN SEARCH COMPLETED - 3235 TO ITERATE

100.0% PROCESSED 3235 ITERATIONS  
SEARCH TIME: 00.00.01

257 ANSWERS

L10 257 SEA SSS FUL L9

=>

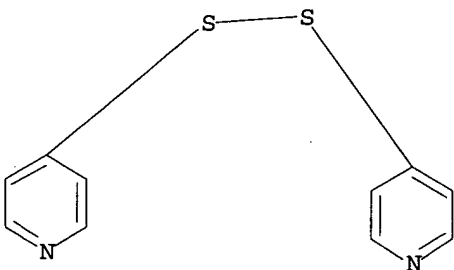
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L11 STRUCTURE UPLOADED

=> d 111

L11 HAS NO ANSWERS

L11 STR



Structure attributes must be viewed using STN Express query preparation.

=> s l11 full  
FULL SEARCH INITIATED 16:28:02 FILE 'REGISTRY'  
FULL SCREEN SEARCH COMPLETED - 542 TO ITERATE

100.0% PROCESSED 542 ITERATIONS 267 ANSWERS  
SEARCH TIME: 00.00.01

L12 267 SEA SSS FUL L11

=>

IN Uchigawa, Kyoshi; Komano, Hiroshi  
 PA Tokyo Ohka Kogyo Co Ltd, Japan  
 SO Jpn. Kokai Tokkyo Koho, 17 pp.  
 CODEN: JKXXAF  
 DT Patent  
 LA Japanese

FAN.CNT 3

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 07199465	A2	19950804	JP 1993-353690	19931229
	JP 3302152	B2	20020715		
	US 6010824	A	20000104	US 1997-889566	19970708
PRAI	JP 1992-324799	A	19921110		
	JP 1993-77037	A	19930402		
	US 1993-149798	B1	19931110		
	JP 1993-353690	A	19931229		
	US 1994-359640	B3	19941220		
	US 1995-453997	B3	19950530		
	US 1995-477256	B2	19950607		
	US 1996-634580	B2	19960418		

OS MARPAT 124:101857

AB The title resin compns. contain a polymer binder, a monomer having an ethylenic unsatd. double bond, and, as photopolymn. initiators, an acridine compound and  $\geq 1$  selected from triazine compds. I, II, and III (R1, R2 = C1-3 alkyl). The compns. show high photosensitivity, resolution, and development margin. Thus, a photosensitive resin composition comprised Fastgen Blue GS, methacrylic acid-Me methacrylate copolymer, trimethylolpropane triacrylate, 9-phenylacridine, and I (R1 = Et).

IT 40047-10-7, 1,3-Bis(9-acridinyl)propane

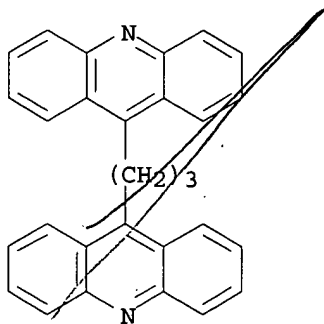
RL: CAT (Catalyst use); USES (Uses)

(photosensitive resin composition containing acridine compound and triazine compound

as photopolymn. initiators)

RN 40047-10-7 CAPLUS

CN Acridine, 9,9'-(1,3-propanediyl)bis- (9CI) (CA INDEX NAME)



L15 ANSWER 9 OF 13 CAPLUS COPYRIGHT 2006 ACS on STN

AN 1995:763709 CAPLUS

DN 124:41402

TI Resist composition

IN Niki, Hiroichi; Hayase, Rumiko; Wakabayashi, Hiromitsu; Shinzato, Naohiko; Oonishi, Kyonobu; Sato, Kazuo; Chiba, Kenji; Hayashi, Yoshio

PA Tokyo Shibaura Electric Co, Japan

SO Jpn. Kokai Tokkyo Koho, 25 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 2

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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SO Jpn. Kokai Tokkyo Koho, 9 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 07234504	A2	19950905	JP 1994-25041	19940223
	JP 3428715	B2	20030722		
PRAI	JP 1994-25041		19940223		

AB The composition comprises a polymer containing a structural repeating unit I  
(X =

cation; n = 0, 1, 2) and a sensitizer containing a cationic group (e.g.,  
quaternary ammonium) in the mol. The composition shows good storage stability  
and gives high-resolution pattern. The composition is useful for screen

printing

plates, color filters, etching resists, etc.

IT 82649-85-2

RL: MOA (Modifier or additive use); USES (Uses)

(sensitizer; water-soluble photosensitive vinyl alc. ionic resin

composition)

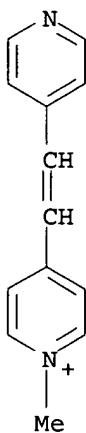
RN 82649-85-2 CAPLUS

CN Pyridinium, 1-methyl-4-[2-(4-pyridinyl)ethenyl]-, methyl sulfate (9CI)  
(CA INDEX NAME)

CM 1

CRN 46459-24-9

CMF C13 H13 N2



CM 2

CRN 21228-90-0

CMF C H3 O4 S

Me-O-SO<sub>3</sub><sup>-</sup>

L15 ANSWER 8 OF 13 CAPLUS COPYRIGHT 2006 ACS on STN

AN 1995:938451 CAPLUS

DN 124:101857

TI Photosensitive resin compositions using specific photopolymerization  
initiators

AN 2000:10547 CAPLUS  
 DN 132:71390  
 TI Photosensitive resin composition containing triazine compound  
 IN Komano, Hiroshi; Iwai, Takeshi; Ohta, Katsuyuki; Aoyama, Toshimi;  
 Uchikawa, Kiyoshi  
 PA Tokyo Ohka Kogyo Co., Ltd., Japan  
 SO U.S., 26 pp., Cont.-in-part of U.S. Ser. No. 634,580, abandoned.  
 CODEN: USXXAM  
 DT Patent  
 LA English  
 FAN.CNT 3

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 6010824	A	20000104	US 1997-889566	19970708
	JP 06148885	A2	19940527	JP 1992-324799	19921110
	JP 3187569	B2	20010711		
	JP 06289611	A2	19941018	JP 1993-77037	19930402
	JP 3263172	B2	20020304		
	JP 07199465	A2	19950804	JP 1993-353690	19931229
	JP 3302152	B2	20020715		
PRAI	JP 1992-324799	A	19921110		
	JP 1993-77037	A	19930402		
	US 1993-149798	B1	19931110		
	JP 1993-353690	A	19931229		
	US 1994-359640	B3	19941220		
	US 1995-453997	B3	19950530		
	US 1995-477256	B2	19950607		
	US 1996-634580	B2	19960418		

OS MARPAT 132:71390

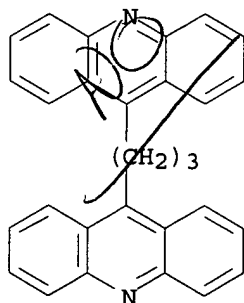
AB A photosensitive resin composition useful as a **photoresist** or for printing plate preparation comprises a polymeric binder, an ethylenically unsatd. monomer, and a photopolymn. initiator. The photopolymn. initiator comprises at least one compound selected from triazine compds. having a bromine atom on the substituted Ph nucleus thereof and trihalomethyl-containing triazine compds. The photosensitive resin composition exhibits a high photosensitivity sufficient for exposure with an argon laser and a satisfactory developability. Addnl. disclosed is a photosensitive resin composition comprising a polymeric binder, a monomer having an ethylenically unsatd. double bond, and photopolymn. initiators including an acridine compound and a triazine compound This second photosensitive resin composition exhibits a high photosensitivity, a high resolution, and a wide development latitude.

IT 40047-10-7

RL: TEM (Technical or engineered material use); USES (Uses)  
 (photosensitive resin compns. for color filter preparation containing photopolymerizable compds., triazine compds. and)

RN 40047-10-7 CAPLUS

CN Acridine, 9,9'-(1,3-propanediyl)bis- (9CI) (CA INDEX NAME)



PRAI JP 1986-113508 A 19860520  
 JP 1986-138144 A 19860616  
 US 1987-47187 B2 19870506

AB A contrast-enhancing layer for a photolithog. material for formation of a patterned image (i.e., a resist image) by the light-projection method is comprised of a photobleachable compound having the structural unit represented by the formula I (Z = a divalent group which forms a heterocyclic aromatic ring structure with the N atom; X- = a monovalent anion; n = a pos. integer) and a water-soluble polymer binder. Thus, a Si wafer was coated with a pos.-working photoresist composition (Microposit 1400-27), dried, overcoated with an aqueous solution containing II

(a photobleachable compound) and pullulan, dried, exposed to UV (365 nm) radiation through a wafer stepper, and developed to give a line-and-space pattern (0.5  $\mu$ m width) with clear resolution

IT 82649-85-2 113657-69-5

RL: USES (Uses)

(photobleachable contrast-enhancing layers containing, for photoresists)

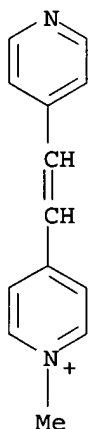
RN 82649-85-2 CAPLUS

CN Pyridinium, 1-methyl-4-[2-(4-pyridinyl)ethenyl]-, methyl sulfate (9CI)  
 (CA INDEX NAME)

CM 1

CRN 46459-24-9

CMF C13 H13 N2



CM 2

CRN 21228-90-0

CMF C H3 O4 S

Me-O-SO<sub>3</sub><sup>-</sup>

RN 113657-69-5 CAPLUS

CN Quinolinium, 1-methyl-4-[2-(4-pyridinyl)ethenyl]-, methyl sulfate (9CI)  
 (CA INDEX NAME)

CM 1

CRN 113657-68-4

CMF C17 H15 N2



10/664,355

1/23/06, CA Reg. File, Struc. Search, 4/28/00

L15 ANSWER 1 OF 13 CAPLUS COPYRIGHT 2006 ACS on STN  
 AN 2004:1038508 CAPLUS  
 DN 142:45899  
 TI Photosensitive resin composition and its application in forming  
 photosensitive element, resist pattern, and printed circuit board  
 IN Ajioka, Yoshiki; Itagaki, Katsutoshi; Kajiwara, Takuya; Fukaya, Takehiro  
 PA Hitachi Chemical Co., Ltd., Japan  
 SO Jpn. Kokai Tokkyo Koho, 19 pp.  
 CODEN: JKXXAF  
 DT Patent  
 LA Japanese  
 FAN. CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2004341354	A2	20041202	JP 2003-139446	20030516
PRAI	JP 2003-139446		20030516		
OS	MARPAT 142:45899				

AB Title composition comprises (A) a binder polymer containing carboxyl group, (B) ethylenic polymerizable compds., (C) acridine derivs., such as 1,2-bis(9-acridinyl)ethane, and (D) benzotriazole derivs., such as 5-carboxybenzotriazole.

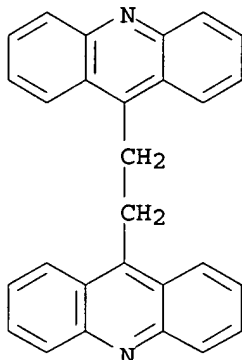
IT 62509-62-0

RL: MOA (Modifier or additive use); USES (Uses)

(photosensitive resin composition and application in forming photosensitive element, resist pattern, and printed circuit board)

RN 62509-62-0 CAPLUS

CN Acridine, 9,9'-(1,2-ethanediyl)bis- (9CI) (CA INDEX NAME)

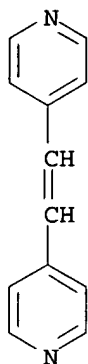


L15 ANSWER 2 OF 13 CAPLUS COPYRIGHT 2006 ACS on STN  
 AN 2000:772288 CAPLUS  
 DN 133:357238  
 TI Negative-working resist composition  
 IN Suetsugu, Masumi; Kusumoto, Takehiro; Takeyama, Naoki; Shinada, Masanori  
 PA Sumitomo Chemical Co., Ltd., Japan  
 SO Ger. Offen., 12 pp.  
 CODEN: GWXXBX  
 DT Patent  
 LA German  
 FAN. CNT 2

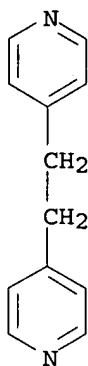
Parent

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 10021298	A1	20001102	DE 2000-10021298	20000502
	JP 2001147530	A2	20010529	JP 2000-88790	20000328
	JP 3721931	B2	20051130		
	TW 550268	B	20030901	TW 2000-89108000	20000427
	GB 2349479	A1	20001101	GB 2000-10477	20000428

GB 2349479 B2 20010905  
 US 6329119 B1 20011211 US 2000-559646 20000428  
 PRAI JP 1999-124526 A 19990430  
 JP 1999-254630 A 19990908  
 AB The neg.-working UV resist composition comprises an alkaline-soluble polymer,  
 an acid-generator, a crosslinking agent, and a base compound represented by  
 general formula I (A = divalent aliphatic hydrocarbon may containing imino,  
 sulfide, or disulfide group; X = N, C(NH<sub>2</sub>); R<sub>1</sub>, R<sub>2</sub> = H, alkyl). The  
 resist composition, suitable for fabricating semiconductor devices, shows  
 excellent resolution, profile, and processing stability.  
 IT 1135-32-6, 1,2-Di(4-pyridyl)ethylene 4916-57-8,  
 1,2-Di(4-pyridyl)ethane 17252-51-6, 1,3-Di(4-pyridyl)propane  
 37968-97-1, 4,4'-Dipyridylsulfide  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (base compound in neg.-working resist composition)  
 RN 1135-32-6 CAPLUS  
 CN Pyridine, 4,4'-(1,2-ethenediyl)bis- (9CI) (CA INDEX NAME)



RN 4916-57-8 CAPLUS  
 CN Pyridine, 4,4'-(1,2-ethanediyl)bis- (9CI) (CA INDEX NAME)



RN 17252-51-6 CAPLUS  
 CN Pyridine, 4,4'-(1,3-propanediyl)bis- (9CI) (CA INDEX NAME)

